GE
Lighting

Installation Guide

Lumination™ LED Luminaires

(BL Series - Continuous Run Option)

BEFORE YOU BEGIN

Read these instructions completely and carefully.

⚠ WARNING/AVERTISSEMENT	
RISK OF ELECTRIC SHOCK • Turn power off before inspection, installation or removal. • Properly ground electrical enclosure. **RISK OF FIRE** • Follow all NEC and local codes. • Use only UL approved wire for input/output connections. Minimum size 14 AWG. • Type IC, inherently protected.	**RISQUES DE DÉCHARGES ÉLECTRIQUES** • Coupez l'alimentation avant d"inspecter, installer ou déplacer le luminaire. • Assurez-vous de correctement mettre à la terre le boîtier d'alimentation électrique. **RISQUES D'INCENDIE** • Respectez tous les codes NEC et codes locaux. • N'utilisez que des fils approuvés par UL pour les entrées/sorties de connexion. Taille minimum 14 AWG. • Type IC, protection inhérente.

Save These Instructions

Use only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.

Important

- 120V 60Hz - maximum 69 feet of luminaires can be connected on a single through wiring run.
- 220V 60Hz - maximum 126 feet of luminaires can be connected on a single through wiring run.
- 277V 60Hz - maximum 159 feet of luminaires can be connected on a single through wiring run.
- Please see technical data sheet for electrical properties to ensure safe installation.
- Under any circumstance, maximum driver current through connected fixtures shall not exceed 7A.

Prepare Electrical Wiring

Electrical Requirements

- The LED driver must be supplied with 120-277 VAC, 60 Hz and connected to an individual properly grounded branch circuit. Use min. 600V 75°C supply conductor.

Grounding Instructions

- The grounding and bonding of the overall system shall be done in accordance with National Electric Code (NEC) Article 600 and local codes.

Provided in the Package

- Luminaire
- Pre-installed knockout closure (2 Pieces) for 1/2" trade size conduit knockouts
- Universal mounting brackets (4 pieces)
- M3x12mm screws for mounting bracket installation (8 pieces)
- M3 wingnut (8 pieces)
- Ceiling grid screw for grid and bracket fixing (4 pieces)
- M4x16mm screw for bracket to bracket fixing (2 pieces)
- M4 nut for bracket to bracket fixing (2 pieces)
- Primary diffuser
- Optional low glare diffuser with protective foil
- Joiner pins (2 pieces)

Tools and Components Required

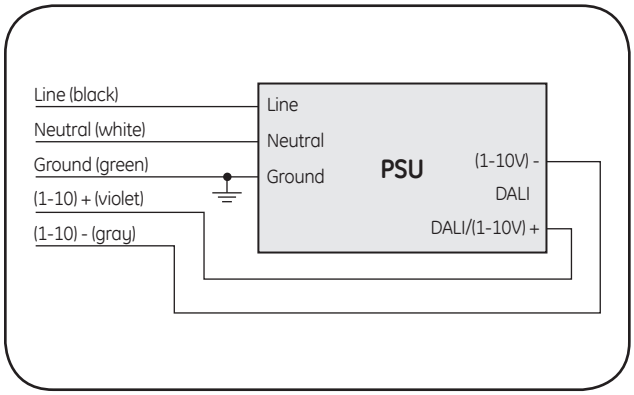
- For end cover install: Philips headed screwdriver
- Rigid (RMC) or flexible (FMC) metal conduit for supply connection
- UL/cUL approved twist-on-wire connectors, min. 14 AWG
- UL/cUL approved conduit fittings for 1/2" conduit trade size (2 pieces)
- For bracket to bracket fixing: 7mm wrench or socket
- Use BL4x Series (SKU: 85598) or BL6x Series (SKU: 63263) End Cover to terminate row

imagination at work

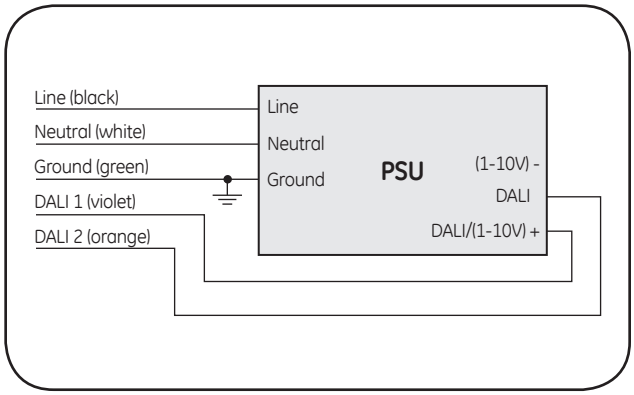
Wiring Diagrams

Optional Installation: 1-10 Volt Dimming or DALI Lighting Controller

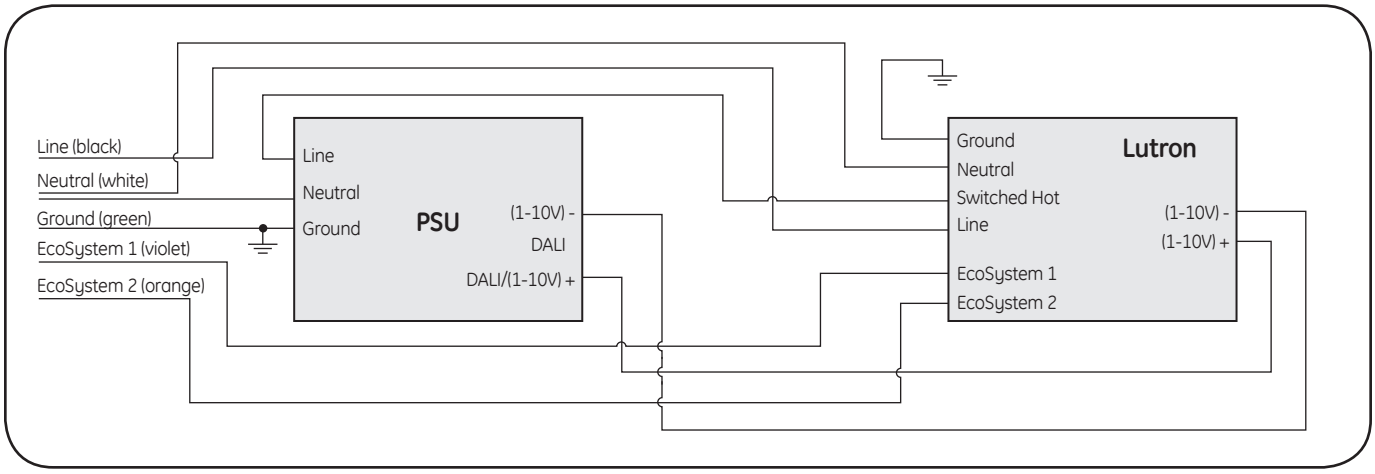
Follow diagram A for 1-10V, diagram B for DALI or diagram C for Lutron dimming.
At output side of LED driver, make appropriate connections using twist-on wire connectors.
Follow lighting controller installation instructions.



A 1-10V wiring diagram

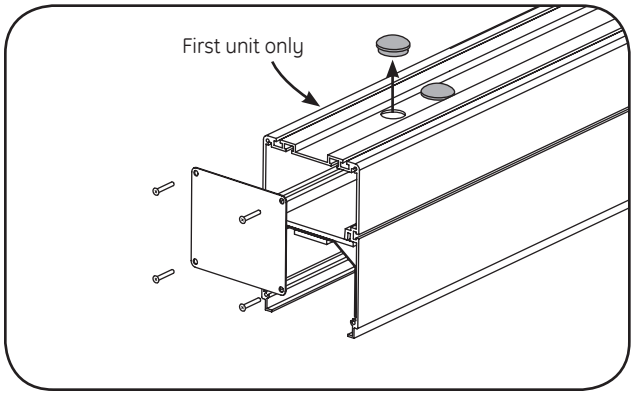


B DALI wiring diagram

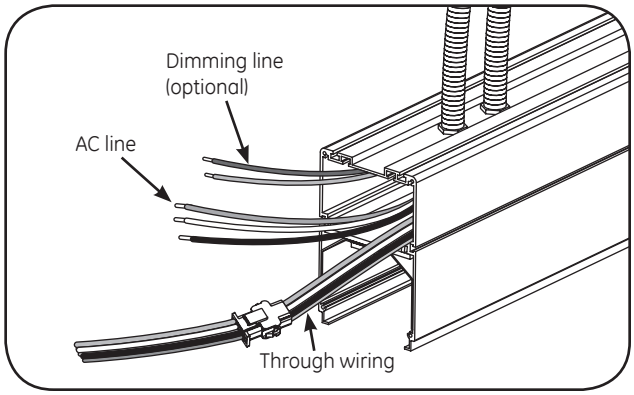


C Lutron wiring diagram

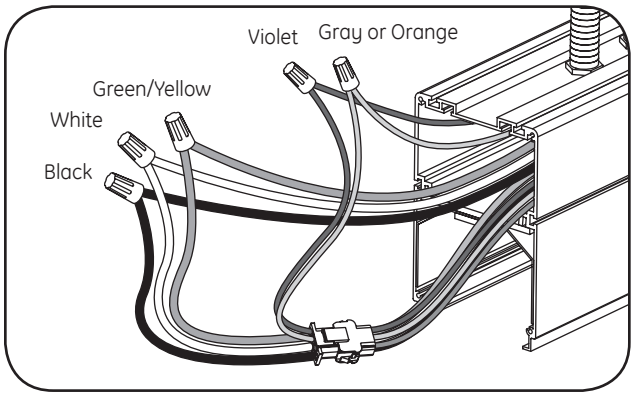
Preliminary Electrical Connections



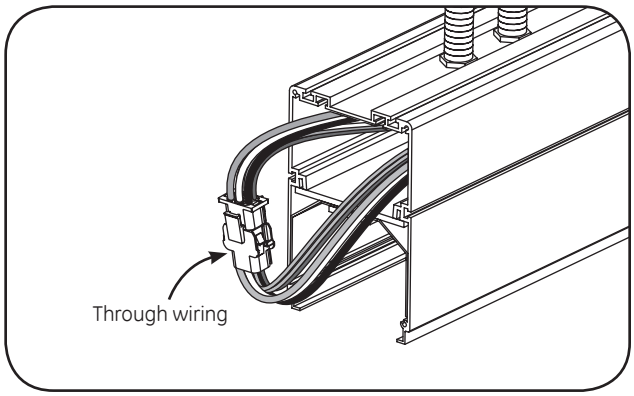
1 Remove end covers from all fixtures. On the first unit, remove knockout closure to insert AC line. Optionally, remove both knockout closures if installing a dimming line.



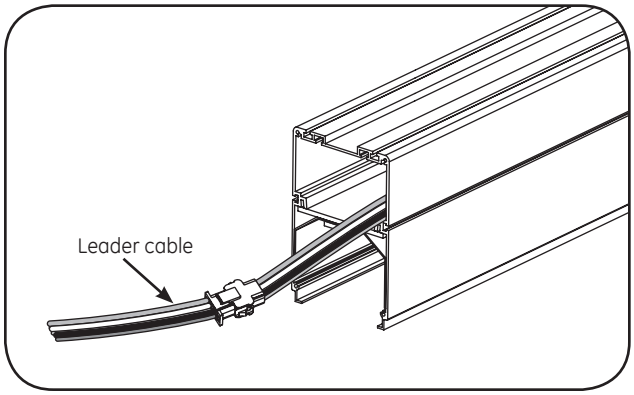
2 Connect UL-approved conduit.



3 Connect to the AC line with twist-on wire connectors: Black to live, White to neutral, Green/yellow to ground, Gray to 1-10V dimming, Violet to common for 1-10V and DALI dimming, Orange to DALI dimming.



4 Push wires and connectors into fixture.



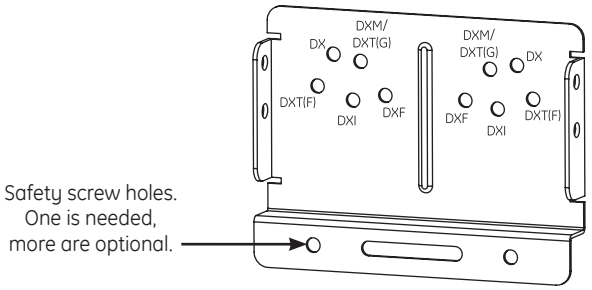
5 Disconnect leader cable from all other luminaires.

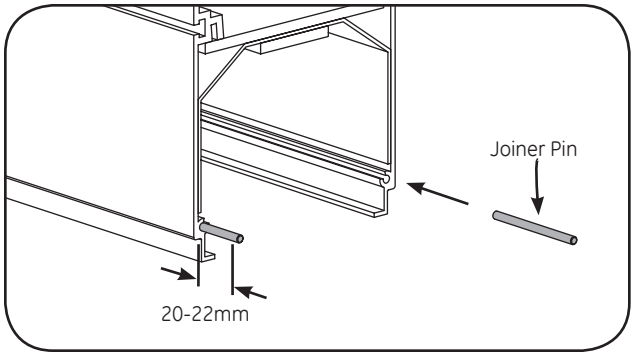
Note: See Step 6 under ***Continuous Run Mounting*** for instructions on how to connect wiring between luminaires.

Luminaire Installation

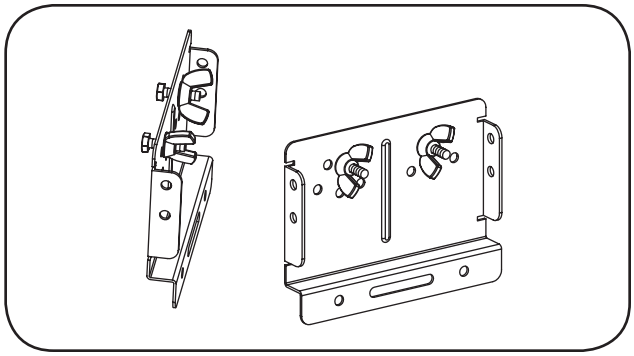
With the supplied universal bracket the product is compatible with the following USG type grids:
DX, DXI, DXT, DXF, DXM.

Reference diagram (right) to determine which hole to use for a given grid.

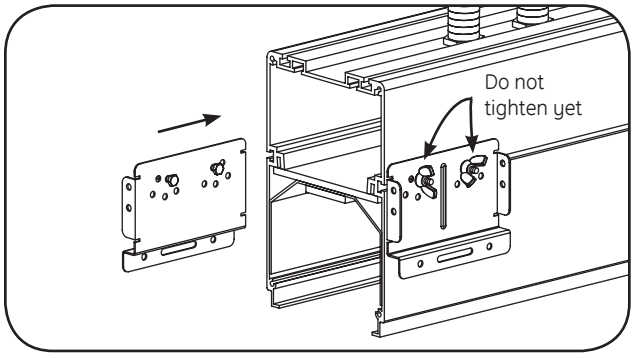




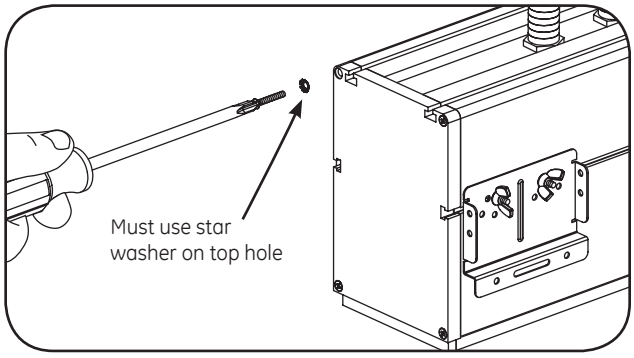
1 For the luminaires that will be in the middle of the run, insert two pins into ***one end only***. Slide pins into the bottom screw grooves, leaving approximately 20-22mm exposed.



2 Pre-install the two M3x12 mm screws with the wingnuts into bracket. The screws should be in the same hole type.

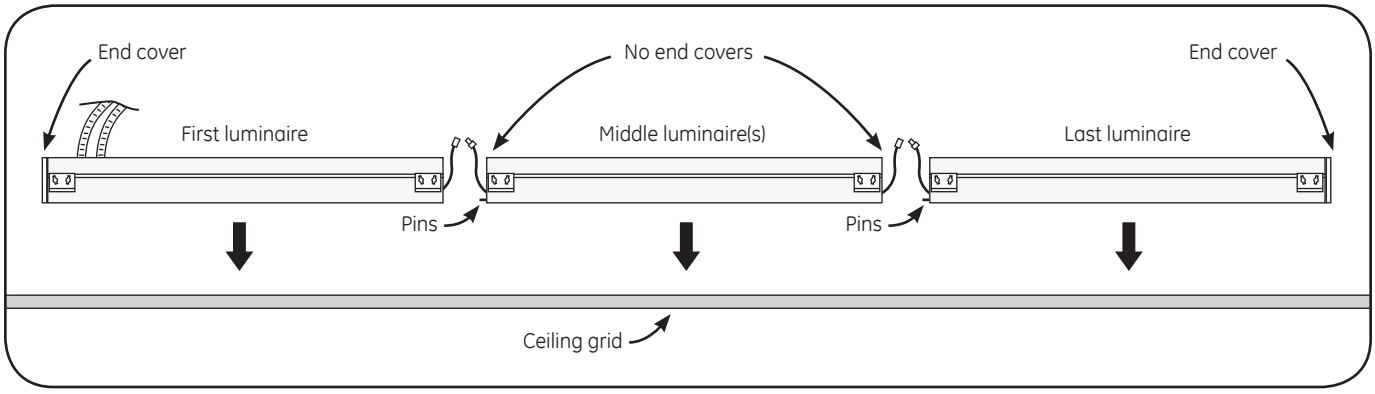


3 Insert four mounting brackets (two per side) into grooves on both sides of luminiare. Position brackets approximately 2-3mm from ends. Do not tighten wingnuts yet.

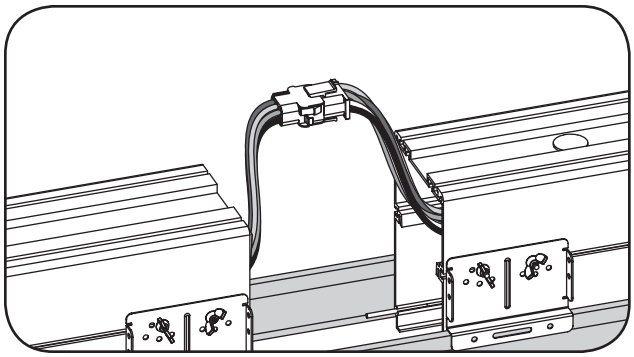


4 Fasten one end cover (BL4X - SKU 85598, BL6X - SKU 63263) on the ***first*** and ***last*** luminaires only with four M3 screws. Always use a star washer under one of the top screws to ensure ground continuity. Use retained end covers, star washers and screws.

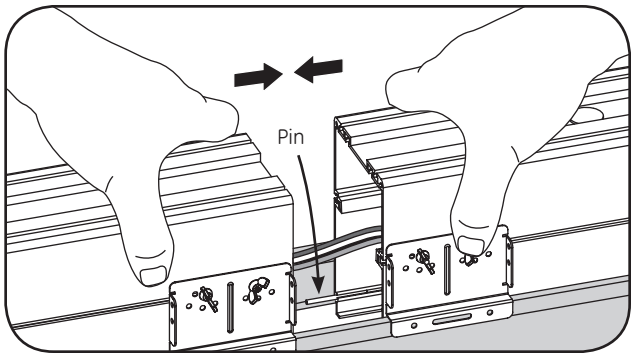
Note: The luminaires between the first and last luminaire do not require end covers.



5 Place luminaires into ceiling grid.

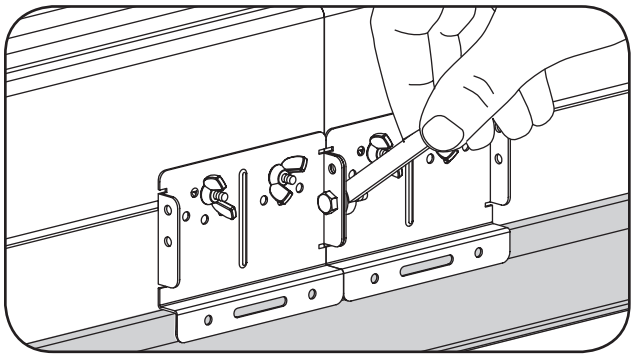


6 Plug together wires between luminaires.

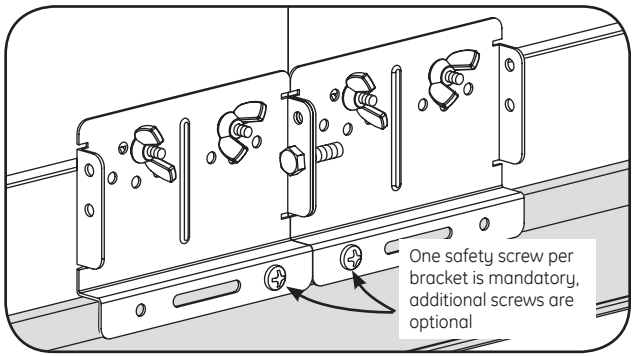


7 Carefully align pins of one luminaire with grooves of next luminiare, then push them completely together, taking care not to pinch wires.

Note: A rubber mallet may be required to complete this step. Hammer the luminaires only on the top edge, not the bottom.



8 Join mounting brackets together with M4 hex head screw and nut. Also tighten wingnuts. Make sure that there is no visible gap between fixtures. Slightly reposition brackets and join them again to have proper fit.

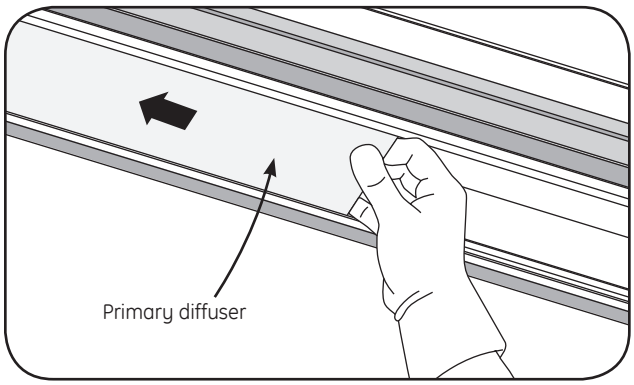


9 For added safety, use additional ceiling grid screws to permanently fix brackets to grid.

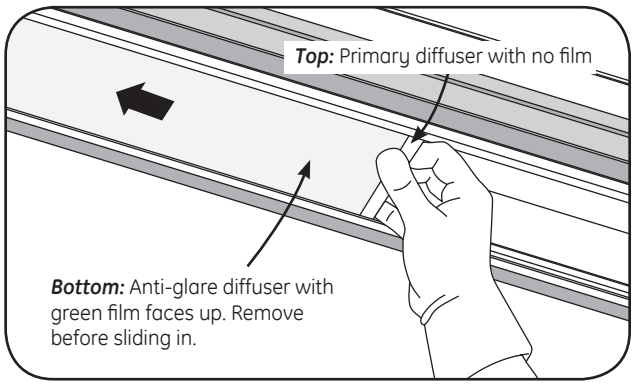
⚠WARNING
Risk of Injury. Improper mounting bracket installation may cause injury or property damage.

Note for City of Chicago: Luminaires are designed to meet City of Chicago Environmental Air (CCEA) requirements. During installation, in any case where the opening between the fixtures exceeds the 0.05" CCEA requirement, a sealant tape can be applied over the opening. Tape has to meet the requirements of UL181A-P and UL181B-FX standards and meet requirements for UL-723.

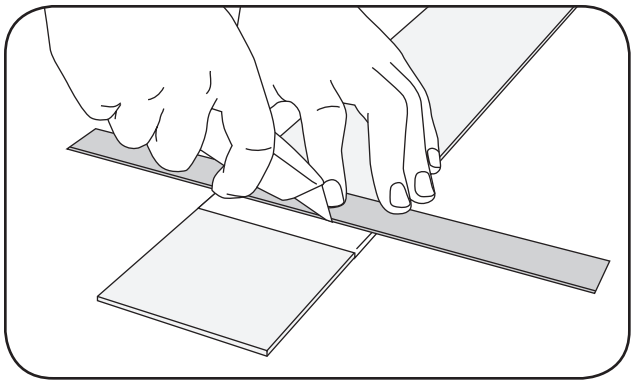
Diffuser Installation



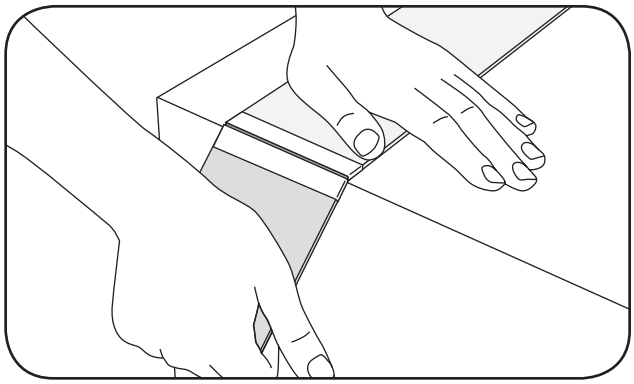
1A ***Option - one diffuser (primary):*** Tilt and slide diffusers into base of luminaires. The last diffuser will need to be trimmed to fit in Step 2.



1B ***Option - two diffusers (primary and anti-glare):*** Tilt and slide both diffusers into base of luminaires, making sure the diffuser with the green protective film is placed on the bottom (remove film first). The last diffusers will need to be trimmed to fit in Step 2.



2 Place diffuser to be trimmed on a clean surface. Apply masking tape over cutting area. Score plastic with utility knife to about 50% of plastic thickness.



3 Position score over table edge and carefully snap off end. Remove tape, file edge, and clean. Install diffuser as instructed in Step 1.

Troubleshooting

Symptom	Solution
Luminaire does not light	• Check input voltage and check power supply input/output connections. • Check circuit breaker.
Luminaire is dim	• Dimming wire connection shall be checked and if connection is not proper, reconnect it. If wire is harmed, replace it with an intact one. Also check that dimming wires are not in short circuit.
Luminaire is blinking	• Ensure power supply temperature does not exceed its maximum rating. • Refer to the tc point located on power supply.
Luminaire does not dim	• Check dimming wire connection.
Luminaires will not turn on	• Check that the color of the supply side wires match the color of the wires they are connected to. • Check that the LED driver connector is fully engaged to the LED light engine connector. • Check that the LED light engines are connected at the junction between the two luminaires.
Luminaire on through wiring will not turn on	• Check that the through wiring connector from the previous fixture in the linear row is fully engaged to the malfunctioning luminaire.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This Class [A] RFLD complies with the Canadian standard ICES-003. Ce DEFR de la classe [A] est conforme á la NMB-003 du Canada.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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